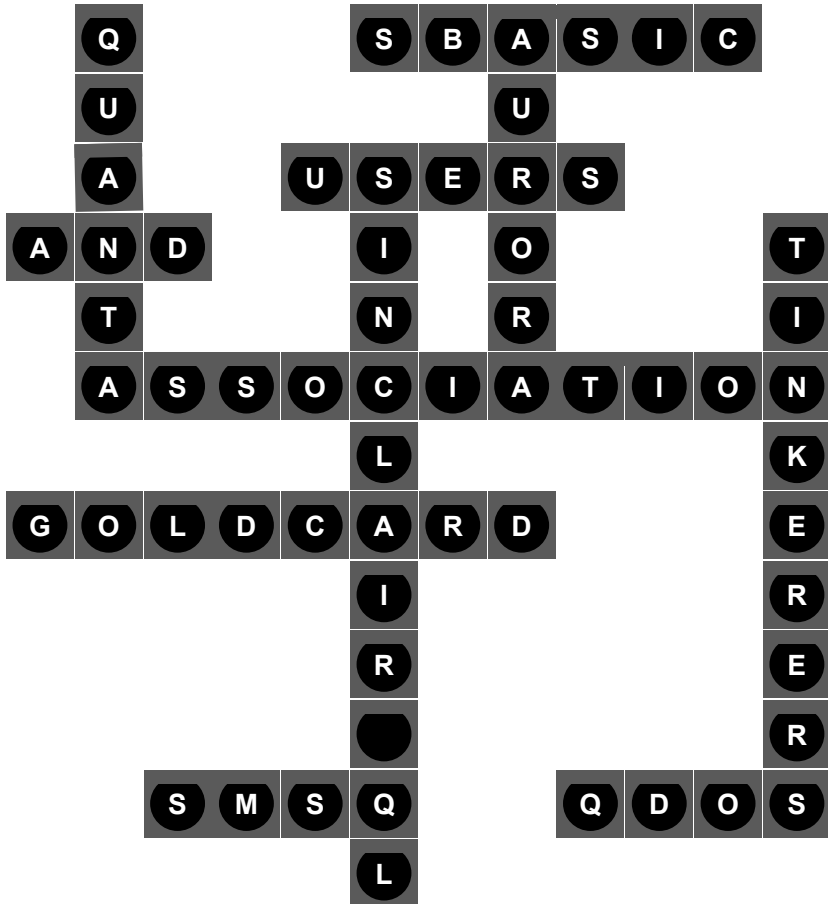


# QUANTA

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Volume 25. Issue 3.  
June/July 2008

## Information on the Association

Membership of QUANTA, the independent QL user group, is by annual subscription. The Membership Secretary can supply full details. Copies of the association's constitution & annual accounts are available from the Secretary. There is an extensive software library. There are active national subgroups. Details are given in the Member's Guide and in this magazine.

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# Quanta Magazine

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**COPY DATE for AUG/SEPT 2008**

**ISSUE is:**

**5<sup>TH</sup> AUGUST 2008**

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**T**his Year's Committee is well under way, with Dilwyn Jones getting down to the new job of 'News', and a smooth handover of the Editor's job from John Gilpin to Tony Hill.

Thank you very much John for all the effort you have put in over the last 4 years to bring the magazine up to such a high standard, and to bring to fruition the email Magazine project.

However the best laid plans oft go agley, Tony is rather off colour so John Gilpin is editing this magazine.

Best wishes Tony, hope you will be fully recovered and back in action for the August/September magazine.

Beyond that we are hoping to hold an Autumn Workshop in the South, and are progressing with plans for QL is 25 next year.

## EDITORIAL

## John Gilpin

---

**W**hen Tony Hill rang me to say that he was not up to editing the June/July issue of QUANTA Magazine, I thought that I was being given the opportunity to rectify the lateness of what I thought was to be my last issue. (April/May) Unfortunately I am here again apologising for the even later publication of the June/July issue.

Having undertaken a project previously shelved due to lack of available time, I could hardly postpone it again and when work on this issue finally started in earnest I lost a good hour trying to find the derivation of the Chairman's chosen word "agley" (which he spelt "agly"). Perhaps John M has some Scottish (or Scotch !!) blood in his veins as the word is of Scottish origin coming from *gley* = squint and means askew or awry. (Thanks Readers Digest 'Complete Word Finder' for solving that for us.

Anyway, I am pleased to be asked to help out again and hope that you enjoy this issue.

My thanks to our regular contributors, Steve Poole, Hugh Rooms and of course our own Dilwyn Jones. What would I have done without them?

Since the AGM the committee have been working towards finding a suitable venue for the 25th AGM 2009 and the 'QL IS 25' Celebration Workshop. It has been agreed that we shall hold the AGM and Workshop at the Allesley Hotel in Coventry on 18th/19th April 2009.

Other matters that have been discussed have been:

1. The setting up of paying Membership Subscriptions on the QUANTA web site using a PayPal Account – this is currently at the testing stage and we hope to go live soon.
2. The possibility of an autumn workshop – despite an appeal at the AGM for a subgroup or individual to volunteer to host an autumn workshop we have had no offers to date. Ideally the venue should be in the southern half of the country as the last two venues were Birmingham and Manchester.
3. The archiving of the Quanta Magazines from 1984 to present day.
4. The updates required to the Quanta Member's Guide as a result of resolutions approved by members.

I hope to be able to report more fully on these and other business matters in the next issue.

## AUTUMN WORKSHOP 2008

## Sarah Gilpin

---

Is any Sub Group or individual prepared to host and organise a WORKSHOP this autumn?

Is 2008 going to be the first year with only one QUANTA Sponsored Workshop?

Do the members feel that one workshop and social get-together a year is sufficient?

Quanta committee will support a workshop and provide any assistance that is required at the event.

Replies to [Secretary@quanta.org.uk](mailto:Secretary@quanta.org.uk) as soon as possible please.

### ORDER & CHAOS

It was while studying the apparently chaotic fluctuations of markets and also the scale-independent outlines of coasts that Mandelbrot stumbled on fractal structures. Julia graphs are a very important branch of Fractal mathematics, and computers have been used a lot to explore them. Julia, like Mandelbrot, was a French mathematician who discovered a new class of fractal patterns. Julia code is in fact very concise: it is in fact just modified complex numbers looping back on themselves. After studying Julia formulae, I decided to explore such patterns in depth to see if their variations followed any set sequences.

This code first tests range to make sure the coordinates don't mathematically overflow by heading off to infinity, goes on to test values to fit them to the graphics Scale, and then draws out the generated graph and finally pauses. So hit any key to move on, or 'q' to quit. Use WINDOW#2,360,206,0,0 to fit the printed code onto the listing screen.

The designs produced here are many and various, but I could not help feeling that there were common threads linking them all, and finished by discovering a series of values which allow graphs to evolve from simple straight lines to highly convoluted schemas. These have direct relations to such domains as turbulence, via the study of interlinking spirals. I have found some beautiful eddy corridors with  $n=1$ , but unfortunately hit a key before recording the coordinates and therefore lost them!

Normally, I noted interesting parameters and saved some of them in a page of DATA statements, allowing subsequent playbacks. If you don't want to show the saved DATA set the 'datum' variable to zero. Parameters are then only generated at random. With time you can examine a sample of the full range of output. But of course, this means most of the graphs will be uninteresting, so have patience to wait until some spectacular ones appear, and note their parameters to add to the beginning of the DATA lines for future reference.

Instead of random exploration, you could always nest two FOR loops, A and B, to systematically test the entire range from 0 TO 1 by STEPs of '.0000001', but I feel sure you would prefer leaving discovery to chance than spending thirty-two thousand years waiting to see all of the entire one Imperial Billion range printed out! Einstein said that God doesn't play dice.

## Quanta Magazine

These Julia examples show why nature uses chaos to power evolution: the statistics of probability clearly demonstrate that random generation is quicker to produce order than thoroughly trying all possible combinations. Chaos is a marvellous way, for example, of mixing stardust to allow complex molecules to interact and form living organisms. Indeed, constant evolution is assured by the regular appearance of mutations of ADN due to random Cosmic Ray damage. So one might say that God does play dice after all as this forms an integral part of the schema of creation!! Luck is a linear phenomenon like light or heat. You have it in lesser or greater quantity, so there is no such thing as 'good' or 'bad' luck. There is only more or less chance, in the same way that there is no cold or darkness, just more or less heat or light. But man has always tended to be anthropocentric!

*(That's believing man is the centre of existence - Ed)*

Back to the program... Designs are simply mirrored to improve their aesthetics. Points that go off to infinity form part of straight lines which of course do not curve back onto the screen, so this is why they are beeped but not drawn.

I am considering compiling a much longer data series to demonstrate a more gradual evolution of graphs, so as to show how forms evolve from one type to another, saving screens and then finally doing a video playback for rapid animation. But this would be too long to type in here, and would not work on QPCs anyway, because you can't PEEK and POKE easily into PC ram memory....

I first wrote this program in 2002: Change the 'last' variable if you wish to see a different level of detail, but this will only work with some motifs.

Please feel free to mess around with the code. The more people tinker with it, the more chances there are of conceptual breakthroughs. Or just spend a few hours running the program: You will certainly stumble on an intricate Julia motif. If you do, please let the editor know, and thereby other members may benefit from your work. This project took me two (rainy) holi-days to complete, because of the need to spend a lot of time watching random output. With luck you may trap a highly intricate fractal monstrosity,

Happy Dragon-Hunting.

# Quanta Magazine

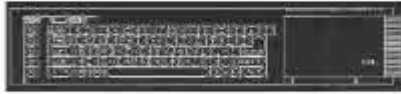
```
::
110 REMark Julia2_bas by S. Poole. v2sept2007
120 REMark for Quanta. beta-test by B.Coativy.
130 REMark LRUN under QDOS or EXEC under SMSQ/E.
140 REMark Hit any key to move on...
150 :
160 CLEAR: RANDOMISE DATE: OPEN#1,con_16: datum=1
170 IF datum: RESTORE : ELSE RESTORE 820
180 WINDOW 512,256,0,0: PAPER 0: INK 4
190 ct=0: s=1E-
200 : out=1E150: last=1024: n=2200   DIM t(last,2): f$=FILL$(' ',18)
210 :
220 REPEAT loop
230  IF NOT EOF THEN
240    READ a: READ b: ct=ct+1
250    ELSE a=RND: b=RND: ct=0
260  END IF : CLS: x=0: y=0: sc=s
280  AT 0,0: PRINT!ct!'A'!a!!'B'!b
290  :
300  FOR points=1 TO last
310    z=x*x-y*y-a: y=n*x*y-b: x=z
320    :
330    REMark Avoid Overflow:
340    IF x>out OR y>out: get_key 0: NEXT loop
350    t(points,1)=x: t(points,2)=y
360    :
370    REMark Adapt scale:
380    ax=ABS(x): ay=ABS(y)
390    IF ax>ay THEN
400      IF ax>sc: sc=4*ax: scalem
410      ELSE IF ay>sc: sc=3*ay: scalem
420    END IF
430  END FOR points
440  :
450  FOR points=1 TO last
460    px=t(points,1): py=t(points,2)
470    POINT px,py: POINT -px,-py
480  END FOR points: get_key 1
490 END REPEAT loop
500 :
```



## Quanta Magazine

```
510 DEFine PROCedure get_key(wait_)
520 IF NOT wait: BEEP 1234,56
530 i$=INKEY$(#1,-wait_): IF i$=='q': STOP
540 END DEFine
550 :
560 DEFine PROCedure scalem
570 SCALE sc,-sc/1.4,-sc/2
580 AT 1,1: PRINT f$: AT 1,1: PRINT'Scale:!'sc
590 END DEFine
600 :
610 REMark Save new data here:
620 DATA .7432369, 5.234833E-2, .2812123,.625673
630 DATA .6912306,.2738298, .2057871,.6455763
640 DATA .3016539,.6307207, .5832484,.144483
650 DATA .7533657,1.319548E-2, .2006933,.6866502
660 DATA .7524959,2.506744E-3, .76,5E-2, .1,.64
670 DATA .1,.66, .1,.83, .47,.53, .61,.39, .61,.4
680 DATA .61,.41, .61,.44, .69,.28, .93,.24
690 DATA .47,.545, .471,.54, .2,.63, .2,.8
700 DATA .473,.586, .2668564,.629285, .4714944,.5449182
710 DATA .7475234,5.811664E-2, .6743647,.3066272
720 DATA .32,.62, .1217254,.5614342, .4344649,.563395
730 DATA .1712504,.8260986, .3415916,.5582474
740 DATA .6526084,.3359222, .7361159,.1119248
750 DATA .2185892,.7469784, .1326674,.6470928
760 DATA .4099425, .5759269, .109413,.648451
770 DATA .6416103,.3757395, .4689475,.5665109
780 DATA .1119003,.6509921, 3.497713E-2,.6424316
790 DATA 1.954667E-2,.6380728, .6315417,.4064493
800 DATA 3.791565E-2,.7802303, .4108119,.5793706
810 DATA .4852825,.5283181, .4648184,.5590794
820 ::
```

# QUANTA



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Further details from the Membership Secretary

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**Tel. +44 (0) 161 865 2872**

Or

**Visit the Quanta Web Site**

**<http://www.quanta.org.uk>**

**Email: [membership@quanta.org.uk](mailto:membership@quanta.org.uk)**

### NEXT QUANTA SPONSORED EVENT

**QUANTA invites members and/or Subgroups  
to apply to organise a QL Autumn Workshop  
in the Southern half of England  
for September/October 2008**

**All enquiries to Sarah Gilpin**

**[secretary@quanta.org.uk](mailto:secretary@quanta.org.uk)**

The mathematical equation that describes the vibration of a stretched string, such as a violin or guitar string, has a solution that is effectively two equal sine waves travelling in opposite directions along the string. Remarkably their sum is the stationary wave that gives the shape of the string at any moment. I have always found this strange and difficult to visualize, so I wrote this little SB program to see it for myself.

I use QPC, so I have tried to write it so that it can be easily adapted to local circumstances; and kept it short, so, for instance, there's no check that the input is sensible. Things like colours are in as constants so that they can be altered in one place.

It starts by requesting the harmonic you want to see, and in its default mode, just pressing <enter>, it shows the fundamental, with just one node, and the two stationary points where the string is fixed at its ends.

At the bottom and middle of the screen the two travelling waves drift by, and their sum at the top is how the string vibrates. The second harmonic, entering 2 at the prompt, gives two nodes, and three stationary points; a picture, (unfortunately it doesn't move!) is in the figure. I have added the rest positions as horizontal lines; they can be left out by REMarking Xaxes in line 330, and actually I find that a more satisfying picture.

I hope that the program is fairly self-explanatory. The points are drawn as x sweeps across from left to right, with the previous point erased at that x value by being re-drawn in the paper colour. I must admit that I jiggled the x values so that I got a reasonable picture; the variable xs makes sure that the full number of cycles are drawn across. The various y variables save doing the SIN calculations over again for the standing wave. The dots nicely represent fixed (lengthwise) points on the string, and you can see each executing its motion just out of phase with, and in the top trace at a different amplitude from, the next one along.

On my machine, with no pauses, it runs at a nice speed, about ten seconds for one fundamental cycle. You can make it go faster by reducing dx, which increases the spacing of the dots, and also reduces the number. If they get too few, however, then higher harmonics are not so clearly seen.

# Quanta Magazine

For higher harmonics the picture still takes the same time to draw, so you can see the period for one cycle decrease, and the frequency increase, as they should, for these overtones.

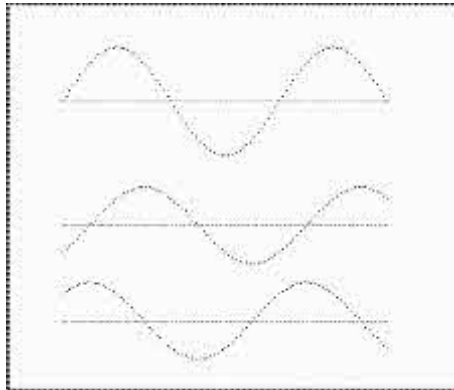
For the REPEAT ALot loop, I didn't think it was worth attempting to make it loop continuously - without a limit it will eventually overflow, but not for several hours.

A final warning - I find it quite hypnotic; so beware, you might waste a lot of time sitting watching it!

```
100 CLOSE
110 COLOUR_PAL
120 Bgd%= 1: REMark Paper colour
130 Fgd%= 0: REMark Ink colour
140 Red%= 163: Grn%= 3: Blu%= 7: REMark for X axes
170 wc%=FOPEN ("con")
180 WINDOW #wc%,300,256,0,150
190 PAPER #wc%,Bgd%
200 BORDER #wc%,1,9,1: INK #wc%,Fgd%: CLS #wc%
210 SCALE #wc%,10,-1,0
220 H$= "Harmonic? default (0) is fundamental: "
230 CLS #0: PRINT #0,H$;: INPUT #0,Hmnc$
240 IF LEN(Hmnc$)>0 THEN
250   Hmnc= Hmnc$: ELSE Hmnc= 0
260 END IF
270 dx= .5*PI/90*(1+Hmnc): REMark Dot spacing horizontally
280 Yoffset1= 1.75: REMark Space the plots vertically
290 Yoffset2= 4.25
300 Yoffset3= 7.5
330 Xaxes
340 FOR t= 0 TO 10000
350   FOR x= 0 TO (1+Hmnc)*PI/2 STEP dx
360     xs= 4*x/(1+Hmnc)
370     INK #wc%,Bgd%: REMark to erase last plots
380     y1= SIN(2*x+(t-1)*dx)
390     POINT #wc%,xs,y1+ Yoffset1: REMark Left going (bottom)
400     y2= SIN(2*x-(t-1)*dx)
410     POINT #wc%,xs,y2+ Yoffset2: REMark Right going
(middle)
420     INK #wc%,Fgd%: REMark To plot new points
430     y3= SIN(2*x+t*dx)
```

# Quanta Magazine

```
440 POINT #wc%,xs,y3+Yoffset1
450 y4= SIN(2*x-t*dx)
460 POINT #wc%,xs,y4+Yoffset2
470 INK #wc%,Bgd%
480 POINT #wc%,xs,y1+y2+Yoffset3: REMark Standing wave
(top)
490 INK #wc%,Fgd%
500 POINT #wc%,xs,y3+y4+Yoffset3
510 END FOR x
520 END FOR t
530 :
535 DEFine PROCedure Xaxes
540 INK#wc%,Red%: LINE #wc%,0,Yoffset1 TO 2*PI,Yoffset1
550 INK#wc%,Grn%: LINE #wc%,0,Yoffset2 TO 2*PI,Yoffset2
560 INK#wc%,Blu%: LINE #wc%,0,Yoffset3 TO 2*PI,Yoffset3
565 END DEFine
700 :
710 DEFine PROCedure backup
720 SAVE win1_waves_waveQ_bas
730 END DEFine
740 :
```



*(Please excuse a couple of items which were intended for the April/May issue but which got omitted in error Ed)*

### DJ Appointed News Editor

Quanta's Annual General Meeting on Sunday 13th April 2008 re-elected the existing committee and also elected Dilwyn Jones to the committee for the first time. Dilwyn will take on the new role of News Editor for the magazine and in time for the Quanta website as that is developed. Please send any QL-related news to Dilwyn Jones by email or on floppy disk:



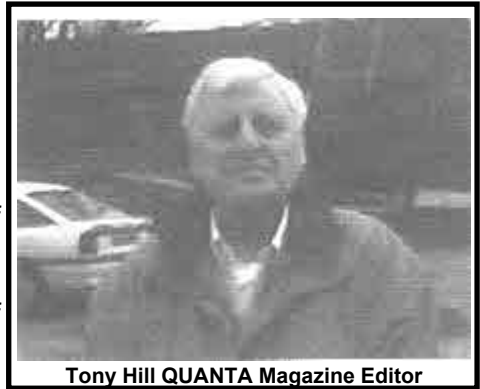
Dilwyn Jones News and Helpline Editor

Dilwyn Jones, 41 Bro Emrys, Tal-y-bont, Bangor, Gwynedd, LL57 3YT, UK  
Mobile: 07749-643922

Email: [dilwyn@uk6.net](mailto:dilwyn@uk6.net)

### Tony Hill co-opted as editor

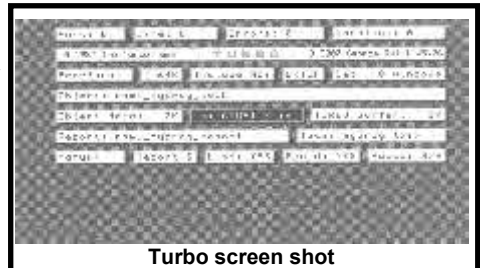
Tony Hill, from the Isle of Wight, was co-opted to the committee shortly after the AGM. Tony will take over the role of Newsletter Editor from John Gilpin.



Tony Hill QUANTA Magazine Editor

### Turbo Compiler Updates

Turbo Compiler has now reached version 5.06 and is available for download from John Sadler's Scottish QL User Group (SQLUG) website and from Dilwyn Jones's website. Turbo Compiler is



Turbo screen shot

# Quanta Magazine

now freeware, of course. Here is a list of changes implemented by George Gwilt in recent versions.

v5.03 - Amendments have been made to Codegen\_task to make safer the inclusion of a config file.

v5.04 - More than 1 config file can be loaded.

v5.05 - Two places of RETRY\_HERE are allowed, one for a RETRY within a WHEN\_ERROR 0 clause and the other for WHEN\_ERROR 1. RETRY\_HERE 0 sets the return position for a RETRY within a WHEN\_ERROR 0 clause and RETRY\_HERE 1 the position for WHEN\_ERROR 1. RETRY\_HERE without either 0 or 1 causes the same position to be set for both WHEN\_ERROR 0 and WHEN\_ERROR 1.

v5.06 - An error introduced in v5.05 is corrected. CONTINUE now works properly.

To download this update, please visit one of these websites:

George Gwilt programs page on SQLUG website:

<http://www.jms1.supanet.com/SQLUG/gwilt/gwilt.htm>

Dilwyn Jones's download pages:

<http://www.dilwyn.uk6.net/turbo/index.html>

## Uconfig

**U**Config stands for Universal Config, software from George Gwilt to include config blocks in Turbo compiled programs, C and assembler. The Uconfig version supercedes the original Tconfig package. Many programs use CONFIG or MENUCONFIG to enable a standardised configuration. The program UCONFIG produces standard config blocks which can be added to S\*BASIC, C and assembler programs.



George Gwilt

# Quanta Magazine

The output for a C program is a header file with name ending `_h`. To set this in a C program it is only necessary to include it as a header file.

The output for assembler programs is an `_ASM` file. To use this in an assembler program it should be included.

The output for S\*BASIC programs consists of two files `_DTA` and `_INS`. The first is a set of S\*BASIC DATA lines which must be MERGED with the program. The `_DTA` file which has to be merged with the main program sets a space for the config block which is contained in the `_INS` file and has to be added later. This is done by including a command like the following near the start of the program:

```
REMark %%flp1_programme_ins,1,0
```

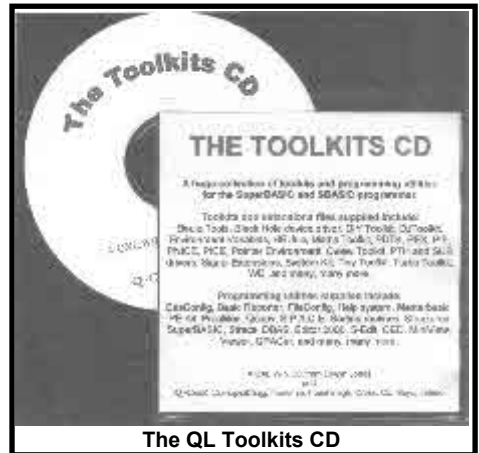
This causes Turbo (v 5.02 or later) to add the `_INS` file during compilation.

CONFIG levels 1 and 2 are accommodated. Also, up to eight config blocks can be produced for insertion in one program.

Uconfig is a 78K download from the Turbo website pages mentioned above.

## Toolkits CD

**T**he Toolkits CD is a new QXL.WIN format CD from Dilwyn Jones and Irish company Q-Celt Computing. This CD contains a large collection of QL toolkits, Basic Extensions and SuperBasic/Sbasic programming utilities - an ideal package for those who write their own software in either SuperBasic or Sbasic. Examples of packages included are MegaToolkit, the DJToolkit, Tiny Toolkit, Turbo Compiler, Tim Swenson's Structured SuperBasic, the PE Kit and various utilities for creating your own config blocks.



For those whose systems cannot read QXL.WIN filing systems on a CD, all of the software is also placed on the CD as a set of ZIP files, which should be copied to a QL disk for unzipping with Jonathan Hudson's QL Unzip package.



# Quanta Magazine

The Toolkits CD costs just £5 from Dilwyn Jones in the UK, or the equivalent in Euros or Dollars plus postage from Darren Branagh at Q-Celt Computing in Ireland:

Darren Branagh, Q-Celt Computing, Funionsa, Funshinagh, Cross, Co. Mayo, Ireland.

## Menu Rext Updated

Jochen Merz has released version 7.68 of the Menu Extension, or QMenu. Only the menu\_rext part has been updated, in both English and German versions. This version is available for registered users to download from the online updates section of Jochen's website at <http://smsq.j-m-s.com/>

Just follow the link to the "JMS Online Updates" section and enter your login and password. Internet Explorer users may need to alter their PC's security settings as instructed on Jochen's page.

If you are a registered menu extension user, but have not yet asked Jochen to register you to be able to access this area, contact Jochen to discuss setting up login and password details.

Changes in version 7.67 were documented by Roy Wood on page 52 of the June-August 2008 issue of QL Today, e.g. the additional timeout facility and MOVE item available in ITEM\_SELECT menus. Version 7.68 also adds a MOVE loose item facility to the ITEM\_SELECT menu.

It is interesting to note that version 7.68 includes a message which says "This menu\_rext release is only licensed for use on QPC!" although Jochen Merz says he has not changed anything that he is aware of to make it work on QPC2 only.

## Congratulations

Albert Boehm reports:

"The next time you see me, you will need to greet me with traditions and honours due to a **GREAT GRANDFATHER:-)**

*[Congratulations Al, from all at QUANTA. - Ed]*

# Quanta Magazine

## QL On A Stick - Update

The QL On A Stick CD has now been updated to include version 0.1 release 100 of QL2K from Jimmy Montesinos. The main benefits of this latest version include support for QL sound via the BEEP command and support for FLASH in MODE 8. Users of older versions can update simply by updating the file QL2K.EXE with the update file downloaded from Jimmy's website at [www.jadiam.org/ql/](http://www.jadiam.org/ql/)



## QL Today Editor - Change of Email Address

QL Today editor Geoff Wicks has a new email address, since his old ISP is closing its server on 30th June 2008. So the old email addresses ...@beeb.net will no longer be available. Please ensure you use his new personal email address of [gtwicks@btinternet.com](mailto:gtwicks@btinternet.com) or the official QL Today email address [QLToday@j-m-s.com](mailto:QLToday@j-m-s.com)

## Quanta newsletter Archive

John Mason and John Gilpin have embarked on an ambitious project to scan all back issues of the Quanta Newsletter. The intention is to create a CD or two full of back issues of the newsletters, possibly as PDF files, so that the newsletters can be archived for everyone for years to come. A full set of newsletters is available for this task, so the intention is that as paper copies deteriorate over time, the newsletter archive will maintain availability of electronic copies of the newsletter for the years ahead.

*[One of the time consuming parts of this exercise is the proof reading of the resulting PDF files against the original. If anyone would like to offer to help with this proof reading and has a full set (or many) of the original magazines, please email [editor@quanta.org.uk](mailto:editor@quanta.org.uk) for further information. Thanks - Ed]*



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## QL Is 25 venue for next AGM in Midlands

Quanta is hoping to organise a very special meeting in 2009 to celebrate 25 years of the QL. First sold in 1984, few could have predicted that the QL itself, plus many derivatives and emulators, would still be active 25 years later despite the normally relatively short lifespans of computers from that era.

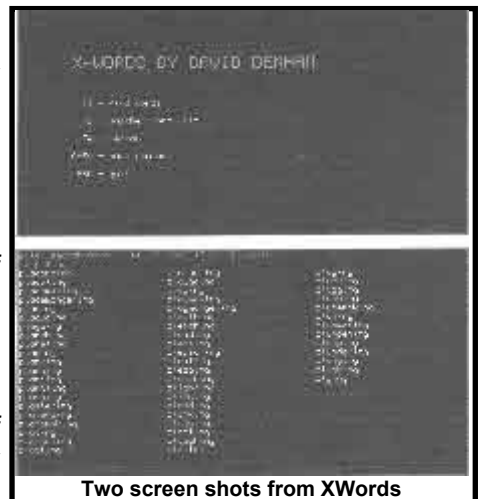
So, following the great success of the Quanta workshop held in Solihull last October, Quanta is again seeking to hold this event centrally within the UK in the general area of Birmingham and a number of possible venues have been canvassed in the area. It is hoped that the event can be held in the spring of 2009.

Quanta will be hoping to attract international visitors to help us celebrate a quarter of a century of QLing, and it is hoped that a number of guest speakers will give talks on a variety of topics during the weekend. We will of course give further details of the exact date and venue during the coming months and we very much hope that as many members as possible will be able to attend what should be the biggest QL date of 2009!

## Xwords Program

Xwords is a new crosswords utility from David Denham. It allows you to use plain text word lists (any language) and to do wildcard searches using the standard '\*' and '?' wildcard operators. '\*' stands for any group of letters, while '?' stands for any single character. So, P?A? may find the word PLAY while PL\*ING would find any word starting with PL and ending with ING. Wordlists should consist of one word per line, in alphabetically sorted order so that the program can

build an index of where each letter group starts to speed up searching where the first letter of a word is known. The program is written in Turbo compiled basic and has been tested with wordlists of up to about 300,000 words long, although this is likely to be rather slow on an older QL system. The program is not pointer driven, so should be usable on most systems with expanded memory and Toolkit 2. Xwords is a freeware program,



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supplied with one medium sized word list (many more are available from QL PD libraries), available for download from Dilwyn Jones's website:

<http://www.dilwyn.uk6.net/games/index.html>

## QL2K

**J**immy Montesinos, author of QL2K, hopes to release Alpha version 100 of QL2K, the QDOS QL emulator for Windows. New facilities are expected to include QL sound support (BEEP emulation), FLASH command emulation for MODE 8 screens and support for more screen resolutions, including 800x480 for the EEE PC which has been much discussed on the QL users mailing list recently. QL2K is available for download from [www.jadlam.org/QL/index.php](http://www.jadlam.org/QL/index.php)



## Lear PCB Cad Update

**M**alcolm Lear has sent me a major update of his PCB Cad software, which is now available free of charge from the Graphics Programs page on my website.

Version 6.46 is a major update, which now supports 6 copper layers plus top/bottom silk screens, top/bottom solder resist, top/bottom mechanical, and top/bottom solder paste masks. It also produces placement files for automatic assembly. All libraries have been updated to reflect changes.

This version can be downloaded from:

<http://www.dilwyn.uk6.net/graphics/index.html>

Please note that v6.46 is just over 1.1MB download, quite large by QL standards.

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## New Qubide Boards

Jan Palenicek is working on a new version of the Qubide IDE hard disk drive interface for the QL. You can get the latest details on the Omega Software Graphics website at <http://omega.webnode.com>

The website includes sample schematics which can be viewed as PDF files. The site includes the old and new board schematics.



Jan has some ideas on updating the board. Here is a quotation from his website:

“The PCB will consist of three boards:

1. Main electronics, Qubide is pass-through interface.
2. IDE daughter PCB
3. CF (Compact Flash) daughter PCB

In order to save some space we decided to stack two PCBs. We are also thinking to create another version with memory expansion (2x512kb SRAM).

PCB fabrication data are now designed in 4-layer pcb in order to save space. We are planning to make one more round in order to implement another bus terminal connector for memory expansion. It was overlooked in current design. So far, we need to check if the PCB works.”

While these details refer to early development work, Jan has also provided further details as work progresses:

### “Update 21.05.08

- IC 74HC646 is obsolete. It could be an issue to get it for reasonable price.

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Update 09.06.08

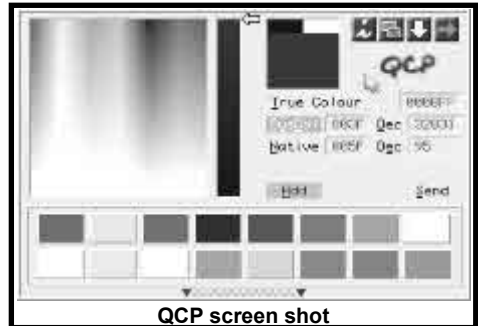
- Prototype boards arrived! Components still on the way..."

Hopefully, we can look forward to news of whether the prototypes work very soon. Visit Jan's website for latest details. The website also includes message form facilities so that you can send messages and share ideas, as some people have already done.

## New Version of QCP

**B**ob Spelten Jr. has released version 1.60 of QCP, a QL Colour Picker program. This is available to download from his website at

<http://members.upc.nl/b.spelten/ql/>



QCP is a very useful utility for those who write programs on a high colour system. It lets you create lists of your favourite GD2 colours and shows the colour numbers. You can select colours from a very colourful HSV (Hue, Saturation, Value) colours display box and then select the brightness levels from an adjacent box. It displays the colour number value in both hex and decimal, so that you can use them in your high colour programs. A DO (right click) on any of the colour number boxes lets you type in a colour number.

The idea behind a HSV display is that it lets you select a Hue (colour). The further down the display you go, the paler the colour (less Saturation). Then the other box lets you select how light or dark it is (brightness). It sounds like a difficult concept, but you quickly get used to it. It's just a question of selecting a basic colour (say, blue) from the "rainbow" display, then choosing how strong or pale a shade of blue you need, and finally use the other box to select how bright or dark you want it to be.

You can either write down the colour values by hand, or if you are familiar with the stuffer buffer you can get QCP to send the colour values to the stuffer buffer from where you can copy them to another program via an ALT-SPACE keypress. It shows a list of 16 favourite colours and you can change and save this list at any time.

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In addition, it can handle 3D borders, QL, PAL, Palette, Grey and Stipple colours.

Here is a list of changes in this latest version, taken from the program's manual:

- System Colours can now be stuffed as hexadecimal and decimal values.
- Also Native values are calculated and can be stuffed.
- 3D-border values can be picked from a scroll down window.
- Favourite colours can be loaded or saved under another name.
- Numbers can be edited or input and the colour will be shown.
- The chosen colour field has a black & white block at the top for contrast comparison.
- 3 defaults need to be set with (Menu)Config.
- The "\_inf" extension can be changed to "\_mfc", as in the new QCoCo 1.60.
- The Menus have been updated with EasyPTR4.
- All loose items now have a selection key.
- Some Menu\_rext calls already use the new 'timeout' options of version 7.67 (out soon).

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## SUBMITTING NEWS

**Dilwyn Jones**

If you have news items you'd like to send to Quanta, please send them via email to [news@quanta.org.uk](mailto:news@quanta.org.uk) or by snail mail to the news editor at the address inside the front cover of the newsletter.

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## DITHVIDE GRAPHICS

**Dilwyn Jones**

Jan Palenicek is probably better known to us as the person who is currently redesigning the Qubide boards. Dithvide is an earlier software work of his which seeks to improve the graphics capability of an original QL by using interrupts to allow mixed mode 4 (4 colour) and mode 8 (8 colour graphics) and making use of good dithering routines and creating the illusion of new colours, e.g. Jan cites one example of rapid change between black and white giving the illusion of grey. The name Dithvideo probably stands for Dithered Video.

While it does not increase the number of colours a standard QL can directly display, it does enhance the capabilities a little by allowing a standard QL to make use of the second screen which is normally usable



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only on Minerva-equipped machines. His software enters supervisor mode and uses interrupts to switch the machine status register between either screen so as to allow use of either at a given point in the screen - there is a program in Quanta library which also does this sort of thing to achieve special effects in video by switching between the two screens to allow one half to be in mode 4 and the other half in mode 8, see disk UG02 for a program called SplitMode by C. Stretch.

Jan's technique is explained on his website at

<http://omega.webnode.com/products/sinclair-ql-dithvide-2/>

and you can download some files to study his work, including assembler source files. These files are archived in what is called "7-zip" format which is an open-source Windows file compressor ralted to the Zip we know and love/hate. To decompress Jan's files you will need to get a copy of the Windows "7-zip" file manager (or another archiver which understands 7-zip) as none exists for the QL. Further information about this archiver can be found at

[www.7-zip.org](http://www.7-zip.org)

and a Windoze 7-zip program can be found at the sourceforge website at

<http://sourceforge.net/projects/sevenzip/>

until either someone can port it to QL or Jan be persuaded to Zip the files up for QLers!

Here is a quote from Jan's website, which summarises what the software does:

"Hi-color on unexpanded QL (dithvide)

Inventor of the "dithvide" name and method is Zilog - well known programmer and hardware developer, author of divIDE interface for ZX Spectrum.

Basically, two images are altering (interlacing) each frame interrupt (50Hz), thus color of one pixel is in fact average color of two different pixels. Let's imagine that we flicker with black and white - average color is Grey. Similar applies to all other combinations. On the QL we can also play with

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resolutions, thus we have following options:

- a.. Low res dithvide - two 8 color 256x256 images interlaced
- b.. High res dithvide - two 4 color 512x256 images interlaced
- c.. Mixed res dithvide - 8 color and 4 color images interlaced

First two modes are pretty easy and straightforward to display - simply change every frame into displayed videopage, Mixed mode is a bit harder and you need precise timing to display each scan line in different resolution. It is very similar to "multicolor" method on ZX Spectrum."

The example pictures shown on Jan's website speak for themselves, and I can't hope to do justice to Jan's work here, so visit his website and have a look. The only downside at the moment is that the work was done on a QL with SuperQBoard interface and the timing routines are specifically for a machine running at that speed. The website explains what work might be needed to update the software for a faster system such as Gold Card. The software is also unlikely to work on an emulator, as it relies on switching the mc.stat machine status register in the hardware.

During June, Rich Mellor of QL software house RWAP wrote this about Dithvide on the mailing list:

- > It is good to see that progress has continued and the sources now released
- > for QL - Dithvide, which allows the standard QL to display high resolution
- > colours - see
- >
- > <http://omega.webnode.com/products/sinclair-ql-dithvide-2/>
- >
- > This should be supported - wonder if anyone would be interested in writing
- > a game using these techniques?

## **\$100 LAPTOP - Update**

**Steve Poole**

**H**ere are further details of the EEPC.  
Asus have not released full technical specifications of their mini-laptop, but here are such elements as I have been able to get from divers sources.

Price £199.99 for the unit comprising XANDROS linux with windows XP as an option. 7 diagonal inch screen and an 800mhz Celeron processor underclocked to 600mhz. 512Mb DDram, WIFI built in, 2Gb flash memory, 3 USB2 ports, 1 1020x800 VGA out, 1 NET, audio out, multiple SD photocard reader, 895g, 8.9"x6.5"x.9" with fast ON and instant OFF.

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I tested the machine. It is very comfortable to operate and the linux system is perfectly intuitive and stable. It loaded videos from a USB stick and ran them without a murmur! Unfortunately I did not have a copy of QPC to test on it, but with XP or suitable linux extensions there should be no problems. I was able to surf the web immediately via some neighbour's WIFI access, and read my emails in France from my brother's home in Plymouth.

----- Part of Original Message-----

Why am I so eager to see a 100\$ QL laptop? Because when I write programs for Quanta or QL Today they have to be backward-compatible to 1984 QLs, meaning many advanced programming techniques available for the more recent machines cannot be used. We cannot expect members to fork out large sums of money for the latest high-end machines, only to find rapid program incompatibility!

So as we cannot find investors for our own 100\$ QL projects, we must wait until the market overtakes us and provides suitable machines.

It is my hope that 100\$ QLs will be available at QL is 25, so that all members of the QL community will be able to afford fast stable platforms to run all the improved QL software that is waiting in the wings so as to be used by everyone.

That way I will have to write programs which will be, I hope, only forward-compatible. The effect of such a machine should be, I trust, a quantum leap into the future... and ensure many years of QL progress and perhaps a growth of interest by non QLers...

## HELPLINE

**Dilwyn Jones**

**M**embers wishing to submit helpline requests via email can use the email address [helpline@quanta.org.uk](mailto:helpline@quanta.org.uk) or if you prefer to use traditional post, please send the helpline request to me via the address printed inside the front cover of the newsletter.

Obviously, we cannot guarantee to answer every query we receive, but we will do our best! Where we have been unable to answer the queries, we may print the help request as an open request in the newsletter to ask if any of the readers can come up with a solution. And, of course, if readers feel that they have a better solution than we came up with, or would like to correct any errors we make, please write to us!

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## New Fonts

Q. All of my programs use the same QL font built into the ROM. I have some nice fonts on disk and would like to be able to make all of my programs use those. Is this possible?

A. As far as I know, under QDOS, the answer is no, since the font is built into the QL ROM and cannot be altered, and all programs start using the default system ROM fonts unless the programmer has specifically provided his/her own font. If you are using SMSQ/E there is a facility to change the default system ROM. Load any standard QL font into some common heap space and use the CHAR\_DEF command (see SMSQ/E documentation for full details) to change the default system font to one of your choice. From then on, most programs will use this new font.

## Bitwise Operations

(The following query came originally from David Buckley, I have edited it a little to save space)

Q. The other day I was using a QL emulator to read bytes in from the serial port and need to do bitwise operations on the received byte. This was so my Zero2 robot could follow a black line. I can not find anything in the QL Manual, nor on the web. What I wanted to do was:

Sensebyte = Sensebyte & %00000111 to mask off the top 5 bits, for example. And I don't suppose hidden somewhere there are commands to print out binary numbers, i.e. 10111001 etc instead of doing it longhand?

A. Information about this can be found in the QL manual, Concepts section, Operators page.

Bitwise AND is achieved with a double ampersand in both SBASIC and SuperBASIC. For example: a && b

Bitwise OR is achieved with a double vertical bar, e.g. a || b

Bitwise EOR (Exclusive-OR) is achieved with a double caret, e.g. a ^^ b

Bitwise NOT is achieved with a tilde, e.g. PRINT ~variable

Regarding commands to print binary numbers, we use PRINT with the following operators. SBASIC allows binary values to be specified with

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the % symbol before a binary number, e.g. decimal 15 in binary would be %1111. Hexadecimal values can be specified in SBASIC with the \$ operator before a value, e.g. decimal 255 can be specified as \$FF in SBASIC.

SuperBASIC does not have the % and \$ for binary and hexadecimal values, so you would have to use the Toolkit 2 extensions BIN and HEX respectively.

Decimal 15 is represented as binary with BIN('1111'), so PRINT BIN('1111') would print the value 15.

Decimal 255 is represented as hexadecimal by HEX('FF'), so PRINT HEX('FF') would print the value 255.

### **QL-users list - re-subscribing**

Q. I subscribed to the ql-users email mailing list. I now have a new email address. How can I make the list send the emails to my new email address and stop sending them to the old email address?

A. You can get full details of how to do this on the list owner's website. The list owner is Bruce Nicholls of Quo Vadis Design and the website is at

<http://www.q-v-d.demon.co.uk/smsqe.htm>

Another (and possibly more user friendly) way is to use the forms page at the address below to make the changes:

<http://lists.q-v-d.com/listinfo.cgi/ql-users-q-v-d.com>

If your email program supports showing the email message source, have a look at the message header for any ql-users mailing list email, which shows brief details. Look for lines which look like this:

List-Help: <mailto:ql-users-request@lists.q-v-d.com?subject=help>

List-Subscribe: <http://lists.q-v-d.com/listinfo.cgi/ql-users-q-v-d.com> ,

<mailto:ql-users-request@lists.q-v-d.com?subject=subscribe>

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To make changes, manually you need to send emails to [ql-users-q-v-d.com-request@lists.q-v-d.com](mailto:ql-users-q-v-d.com-request@lists.q-v-d.com) with the required command such as subscribe or unsubscribe or help in the body of the email (NOT in the Subject Line or it won't work, except for the help command which works in either the subject line or the body of the email). You may need to use the password originally issued to you as well, although you can get a password reminder sent by using one of the facilities on the forms page mentioned above.

## **Psion Xchange 3.90L/N Date(x)**

The following query appeared on the ql-users mailing list, and the answer was provided by Marcel Kilgus:

Q. System QPC, Program Xchange 3.90L/N, Easel/Abacus  
date(0)  
date(1)  
date(2)  
All give wrong date eg. 28/-1/2108

Can anyone reproduce this ?

A. This is a clash of the languages. Most abbreviated months are spelled the same in English and German (like "Apr"), but May is respectively "May" and "Mai". SMSQ/E is returning "Mai", Xchange is looking for "May". You may either change SMSQ/E to English or open Xchange in a hex-editor and look for "janfebmaraprmyjunjulaugsepoctnovdec" and change that to "janfebmäraprmaijunjulaugsepoktnovdez".

## **Euro € Symbol**

Q. Can I use a Euro € currency symbol into a document on a QL?

A. If you are using SMSQ/E, CHR\$(181) corresponds to the Euro currency symbol. On a British keyboard, use CTRL SHIFT u to obtain the symbol. QDOS system fonts have no Euro symbol normally, but you can get a special font to install on your QDOS system from my website at

[www.dilwyn.uk6.net/fonts/index.html](http://www.dilwyn.uk6.net/fonts/index.html)

Scroll down to the heading "Euro Font For QDOS" and click on the link to download the zipped font file.

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## Zippered Files

Q. I have downloaded a zip file called “game.zip” from the Internet. I copied it to a QL disk and tried to unzip it without success, the unzip program seemed unable to accept that it was a zip file.

A. You may be using an old and unsupported version of QL unzip (version 1, 2, or 3), which does not recognize zip files ending with the Windows-style ‘.zip’ filename ending. Rename the file to end with a QL-style underscore suffix such as “game\_zip”. The best solution is to get hold of a copy of the Jonathan Hudson versions of Zip and Unzip which are the official versions, from

[www.daria.co.uk/gdos/](http://www.daria.co.uk/gdos/)

such as versions 5.32 or 5.40 or later.

## Other Queries

Q. I am using QPC2 on a Windows XP laptop with an English keyboard layout. Some keys are in the wrong place, such as the AT and QUOTE symbols reversed.

A. With some laptops, it is fairly common to need to set QPC2 to have a USA keyboard layout rather than a British keyboard layout. In the QPC2 configuration dialogue screen that you get when QPC2 starts (if it is set not to appear, hold down the SHIFT key as you start QPC2 to force it to appear). In the configuration dialogue, look for the Country Code option. British is code 44, USA is code 1. Use whichever works best for your laptop.

Q. I am writing a SuperBasic program which needs to ask the user to input a number. How can I make sure that only numeric values are entering, to prevent silly inputs crashing the program?

A. INPUT num is the traditional form of number input to a variable. Even just entering a letter by mistake can cause the program to stop with an error. Probably the simplest way of protecting the INPUT is to use a small loop as follows which will safeguard the most common entry errors, though it is far from foolproof:

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```
100 REPEAT input_loop
110 INPUT 'Enter a number > ':a$
120 IF ('.' INSTR a$) OR ('ee' INSTR a$) THEN NEXT input_loop
130 num = '0'&a$
140 IF num = 0 AND a$<>'0' THEN NEXT loop
150 EXIT input_loop
160 END REPEAT loop
```

The routine asks you to enter a number into a string variable called a\$. Line 130 uses a feature of coercion to try to safely convert a numeric value in a string to a numeric variable 'num'. Most errors are caught by this line, which will convert the string entered to a zero if not numeric. By testing for 0 and checking if the string entered was '0' we can test for an error input. There are a few common errors which this won't trap well enough and we test for a couple of these in line 120 – these are a double decimal point and a double E (exponent symbol), which are explicitly checked for with an INSTR. As you get used to more specific inputs which cause errors you can test for these by adding similar checks to line 120.

Q. Can I connect an old PC VGA monitor to my QL?

A. If it is an analogue monitor, no. The QL video socket uses TTL video levels, and one is not compatible with the other. It would need a new QL video circuit or some complex conversion electronics to allow such a monitor to be connected to a traditional QL motherboard. The situation with an Aurora motherboard is rather better, as the manual for the Aurora card shows how to connect an analogue RGB monitor to the card.

Does anyone know if it would be possible to build a small circuit which would sit between the QL RGB video socket and the input of a VGA monitor to convert the signal? QL Today published an article some years ago showing how to attach a QL to the SCART (Peritel) connector on a TV set, using a few resistors to adapt signal voltages and so on. I wonder if such an approach could help us to connect a VGA monitor to a QL? With the flat screens becoming de facto for PCs these days, there are plenty of cheap second user CRT monitors around just crying out for a cheap interface to a QL. Hardware experts – please write in and let us know!



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Q. Apart from the QL itself, are there any other systems able to use the QL network?

A. Only the Aurora card, and a QXL card on a PC as far as I know.

Q. My laptop has become unrepairable (motherboard failure of a 2000 machine). Its replacement will have only USB connections. I have found a cable which will connect USB to a parallel output port. I need this because I have two parallel port printers. One is an A3 - Wye and replacing these is too expensive. There is then the problem of the QL and its association with FLPs. Is there a USB to FLP cable?

A. I presume you are using a QL emulator. If so, what you need is a USB external floppy disk drive. Available from companies like [www.eBuyer.co.uk](http://www.eBuyer.co.uk), these are cased floppy disk drives which plug into a USB port on a laptop and are made specifically for use with laptops without built in floppy drives. These take their power from the USB connection, so usually don't need external power packs. They usually present themselves as a drive A: like an internal floppy drive, and should be transparent to QL emulators which address the floppy disk drive as drive A:

You should check if your laptop has USB1 or USB2 ports, as some will only work with USB2. The laptop's manual or spec sheet should explain this.

These drives are usually made by well known brand name companies like Sony, Hewlett Packard and Plextor and cost from about £17 to £30 from websites like eBuyer. PC World used to stock them but they are no longer on their website, however.

Q. Is it possible to have a USB outlet for a QL Computer? I have been told that the problem would be that the QL would have to be fitted with a USB card and probably there isn't one?

Could QUANTA mobilise some activity on these hardware difficulties?

NO Laptop = NO Emails!!

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A. This has been well covered by various discussions in the past. Those discussions explained that the hardware for a QL USB port would be fairly trivial, but the same old issue with lack of software drivers (individual hardware items plugged in would all need SPECIFIC drivers, not just a software driver for USB ports). Unlikely to happen at all.

## A BYTE OF FUN

John Gilpin

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**A**nyone who uses a keyboard experiences what has become known as "typos", that is misspelt words which often form other words which can, and often do, change the sense of the text entirely.

An item seen recently on the ql-users list was discussing the availability of second user Super Gold Cards. Unfortunately, (or perhaps fortunately!!) the ql-user typed 'Super God Card' and in the following hours a number of subscribers commented on this often in some quite clever and amusing way. Before the topic passed into oblivion I spotted this gem which I offer for the amusement of those who don't subscribe to ql-users list (Shame!!)

**From:** <Norman Dunbar>  
**To:** <ql-users@q-v-d.com>  
**Sent:** 18 June 2008 07:59  
**Subject:** Re:[QL-Users] I want a NEW QL

Morning all,

>> Yes, we can all remain hopeful - of a Super God Card - this could be the  
>> way the supreme being operates too ... :-)

Hmm, the Super God Card, wonder who designed that then? Nasta?  
Who wrote the firmware? Marcel?

Can you imagine the manual :

In the beginning Nasta created the Super God Card.  
And the SUpper God CArd was without form and function.  
And Nasta said 'Let there be Marcel'.  
And there was Marcel.  
And Nasta looked upon Marcel and saw that he was good.  
And Nasta said unto Marcel, "Go forth and write code!"

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And Marcel went forth and wrote code.  
And Nasta looked upon the code and saw that it was good.  
And Nasta said unto Marcel "Open #3, 'flp1\_universe\_dat'".  
And flp1\_universe\_dat was opened for input and output!

...

Are there 'ordinary' god cards as well?

I could go on for hours here, so I better stop!! :-)

Cheers,  
Norman.

Thanks Norman for brightening our day. Where do you get the inspiration from? And at breakfast time too!!

*[Are there any more amusing QL related anecdotes you would like to share with our readers? Send them to:*

[editor@quanta.org.uk](mailto:editor@quanta.org.uk)

*Thanks - Ed]*

**TYPING ERROR**

**Steve Poole**

**B**ullet in own foot again! I must remember in future to test not only programs, but also all code in the text of accompanying articles...

The trouble is, that not having had a printer for most of my QL days, I only check articles on screen and not printed out. I find it most irksome to check articles in Quanta and then find errors which slipped my attention whilst scrolling.

In the APR/MAY issue, page 11 :  
1+8+64 = decimal 73 should read 2+8+64 = decimal 74  
and bit\_1==(1&&x)=1 should read bit\_1==(2&&x)=2

This riles me no end, but please put an errata in the next mag with the above three lines.

My deepest apologies, Best Wishes, Steve.

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## TRADER'S CORNER

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QUANTA recommends the following trading members to supply all your QL requirements, information and advice.

Trader's Advertisements can be viewed at:  
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(When I was a young child my old grandmother used to say this if we kids got all mixed-up).

**F**or many years, I wrote articles for Caving magazines, as caving was my favourite pastime, and there was always plenty of new and interesting things to report to club members. (Yes cavers are crazy people that just love grovelling around in confined spaces up to their necks in mud).

Articles were generally done by writing manuscripts, sending them to the editor to be typed in as stencils, which were then reproduced on rotating drums as inked sheets, and then collated into newsletters. Over the many years I participated in this, not a single spelling mistake was reported to me nor printed for that matter. But all that has changed...

Since I have been writing for computer magazines, I am frequently galled to come across stupid mistakes in articles which I have typed into word-processors, proof-read several times, sent for beta-testing and finally passed through the watchful eyes of the various editors. So what on earth is happening?...

I also spend a lot of time on the Internet researching reports on scientific subjects that are posted on web-sites. And what do I find? Now the sort of people that write on such sites as 'Scientific American' are not weak-minded, but here again I find that errors are rife. It is as though word-processors generate typing mistakes of a sort that were not to be found on old type-writers. How many times do you see 'taht' for 'that' and 'misstake' for 'mistake'?

That these errors go unnoticed during proof-reading on screen is revealing, whilst I find it very annoying to detect all mistakes easily if the text is printed out onto a sheet of paper. As I acquired a printer late in life this generally meant that the first printed copy to come into my hands was the finished magazine, so it would then be too late to make any corrections.

This clearly indicates that changing the head position from keyboard to monitor regularly distracts from the normal flow of eye attention and its resulting concentration, for how else can we explain this apparent weakness with word processors. At first I thought that it was just my retired

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brain getting addled, but after discussing with a lot of people it has become clear to me that scrolling text on screen is a common cause of errors.

Just take care as you read Quanta or more especially QL Today (which is fully proof-read), and I am sure, like me, you will find quite a lot of errors, and errors of the sort which generally go unnoticed, such as the the usual sort.

Now I am not a psychological behaviourist, so just think about this subject if you will, and discuss it with your contacts to see if you can get any insights as to why scrolling through word-processors causes dyslexia... Incidentally, I found about twenty accidental errors when checking this article, which just goes to show the depth of the problem, as I never make any errors while handwriting letters...(Except writing therefor instead of therefore as Bruno Coativy keeps pointing out to me... Oh well! nobody is perfect).

Perhaps if I learnt to touch-type things would get better?

*[When checking QUANTA Magazine, I use the application Spell Checker (although American spellings sometimes get mixed in!!) and correct any obvious typos. I have also been known to refer to The Readers Digest Complete Word Finder. Since the articles are written by the contributors, I tend not to try to correct any grammatical errors as this may change the sense of the text. When the magazine is finished, I print out a copy - which helps to get the Contents List correct - and ask Sarah to read it through looking for any obvious mistakes and inconsistencies . The finished product is also vetted by committee members before being passed to the printers. Despite all this, there have been occasions when errors creep through and I trust that our readers will forgive any errors which they spot. - Ed]*

### **COMMENTS ON THE MAGAZINE**

**Anon**

*[The following was received by email. Do you have any comments to make or discussion topics? Please send them to me - Ed]*

**T**oday I received my copy of the Quanta magazine, and very interesting it was too. I particularly liked Dilwyn's Q&A section which I feel sure will provide plenty of material for future editions. I was rather hoping there would be a section on robots...

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*[I have asked Dave Buckley to write a follow-up article on Robotics for us and I hope to publish it in the next issue - Ed]*

I think this could be a pivotal year for the QL community. If they are all encouraged to buy £200 EEEEC mini-portables, we can take SMSQ/E into a new epoque, finally putting our old, slow QLs into storage, and heading into the future with a new, fast, colourful QL system, ready to receive modern software which it should be profitable for our authors to write.

## **SKYPE FOR MEETINGS?**

**Dilwyn Jones**

**W**hile preparing for the Italian QL Meeting in June, Davide Santachiara wrote on the ql-users email mailing list:

"As in the meeting room we will have available an Internet connection with Skype it could be possible to plan a virtual product (sw or hw) presentation if anybody is interested to show something. Just let me know if you are interested and we try to fix a time-slot (morning or afternoon)."

This set me thinking. We may be able to use such a facility at Quanta workshops, in one of two ways:

1. Traders unable to attend could make workshop presentations or Question and Answer sessions via webcam or Skype telephone/videophone.
2. Visitors unable to attend workshops (e.g. members overseas) could logon to view workshop sessions.

I don't know anything about video conferencing, video telephony, Internet telephony etc to know what is practical and feasible, and what may be possible via dial-up Internet connections or more probably mobile broadband.

Is there any of our readership who might like to provide some information as to what is possible and what such facilities might cost?



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## QUANTA ANNOUNCEMENT

### **25<sup>th</sup> Anniversary Workshop and AGM**

**Saturday April 18<sup>th</sup> and Sunday April 19<sup>th</sup> 2009**

The QUANTA Committee invite all members to come to the

#### **25<sup>th</sup> Annual General Meeting and Celebratory Workshop**

At the ALLESLEY HOTEL, Coventry.

The programme will include

- Talks
- Interactive problem solving
- Repair Desk
- Traders
- Other activities

There will also be a celebratory dinner on the Saturday evening.

Anyone wishing to book

- An early place
- Give a talk or demonstration
- Set up an activity

Please contact me, Sarah Gilpin at [secretary@quanta.org.uk](mailto:secretary@quanta.org.uk)

Further information will be published in the next QUANTA Magazine with full directions etc. The hotel is easily accessible from Birmingham International Airport, so we hope our Overseas Members will be able to come and join us. A number of rooms have been pre-booked for the Friday and Saturday nights. If more are required, then your early intention to attend will help.

**M**ESS stands for Multiple Emulator Super System, which is based in turn on MAME, Multiple Arcade Machine Emulator, and uses the same software engine, but is for home computers and video game consoles rather than arcade game systems. This ambitious open source system uses a core software engine which offers emulation of over 250 systems, including a Sinclair QL (as well as other Sinclair computers of course). MESS runs on Windows systems. The QL emulation part is credited as the work of Curt Coder, and it seems that Malcolm Lear of Lear Data Systems, who wrote the QL PCBcad software, had a hand in some of the early drivers for the MAME system.

The QL emulation seeks to emulate a 128K or 640K QL. Information on how to get the QL emulation working is rather sparse, so the following is the result of some trial and error.

1. Download and unzip the binaries for MESS from <http://www.mess.org> and unzip to a folder on Windows drive C:\ with a name equivalent to the name of the zip file, in my case it was a folder called mess0 125b. Be aware that this zip file is roughly 14MB, so is really for broadband users only. The sources are also available, these also consist of an additional 13MB of code to download.

2. Create a folder called "roms" inside this folder, if it doesn't exist already. We will need to search the Internet for images of the QL ROM chips - these aren't included with the MESS system (if MESS was to include ROM images for all 250 computers it would make it even larger!). Be aware that there may be copyright issues with such images outside Europe, as rights in North America for example are owned by Paul Holmgren and Frank Davies of Mechanical Affinity. MESS tends to use the term "bios" for system roms, to distinguish them from games software roms used on some systems.

3. Use Google or another search engine to search for "mess"+"bios"+"ql". This includes ROM image, IPC image etc, which aren't part of the MESS package itself. I got the QL rom images from <http://mess.slor.net> but they are available from other sites.



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FIG 2.

6. You may find it's full screen and ESC doesn't let you quit from it, or you can't get the commands toolbars with TAB. If so, CTRL ALT DEL and end the MESS task. Go back to MESSUI.EXE and choose the Options menu, then Default System Options, then the Miscellaneous tab and check the "Use new UI" checkbox. There's also options to run maximised, run in a window, run in 2:1 or 4:3 aspect ratios and many other options.

7. It offers 5 devices - MDV1, MDV2, SER1, SER2 and cartridge. I haven't yet worked out how to use these and so far the only clue I've had is a comment from the author in a FAQ that the mdv devices don't fully work. These are supposed to be Microdrive image files, so that you can run your games and other programs from them, as though they were real Microdrive tapes. Sadly, there's not much instructions dealing with using these. As the filename extension used is ".MDV" I thought that these might be similar to QLAY .MDV files, but these don't seem to work. There is, however, the option to save the machine state so that you can resume next time where you left off - this gets saved in a .STA file. In theory, the serial ports should take a text file with extension .TXT but I have also been unable

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to get this to work so far. SuperBASIC does work, but you can't save apart from to a "state" file.

8. Using the graphical user interface is the easiest way of starting the emulator (see figure 2) but there is an option to start the MESS system via command lines using the name of the emulator and various other parameters.

9. Browse the help files from the MESSUI.EXE toolbar and from the QL toolbar (Help command) for instructions. See figure 3 for a sample of the help display.



FIG 3.

The QL emulator on this system is as yet incomplete but promising. Being part of a system which seeks to emulate about 250 machines should help bring the QL to the attention of more retro-computing enthusiasts. As the source files are available, and written in C, it may be possible for QL C programmers to get involved with this. Once it is able to save and load and the .mdv images work, this may become a very promising QL emulator to add to our list of working QL emulators.

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## SUBGROUP MEETINGS

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### THE WEST MIDLANDS QL USER GROUP

**T**his long-running group has moved back to its previous venue, the Queens Head pub in the City Centre. Meetings remain open to Quanta members and non-members alike. The Queens Head is in Steelhouse Lane, Central Birmingham, four minutes walk from Snow Hill main-line railway station and has ample street parking nearby.

Meetings are usually on the first and third Monday of each month (but not on Bank holidays unless the previous one was cancelled for that reason). After your first meeting you're expected to pay £1 each time towards the organisation and monthly newsletter costs - except once a year when the group pays all those who attend a pound instead (We provide food twice a year for those who attend the AGM and the group's birthday party) and at meetings we discuss all sorts of things, QL-related and otherwise, usually from about 8:20 pm. onwards till 10:30 or later. The group owns QL hardware, a disk library and subscribes to relevant magazines. People can join the mailing list for £3.50 per year, even if they can't attend regularly.

The contact number is Mike Bedford White's, on 0121 605 4438, anytime after 11 am.

Email: [mikebwhite@blueyonder.co.uk](mailto:mikebwhite@blueyonder.co.uk)

### QUANTA DORSET SUBGROUP

**M**eetings are held, on the second Sunday of each month at the Merley Community Centre in Harrier Drive, Merley, just south of Wimborne Minster. Time: 2.00 pm. to 5.00 pm. All are welcome.

John Meadows Tel: 01202 576189, or John Mason, 01425 275894.

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## LONDON QL AND QUANTA GROUP

**M**eetings are held in the School Room, which is the basement of the Borough Welsh Congregational Chapel, 90, Southwark Bridge Road, London SE1. This is almost opposite the junction with Marshalsea Road, at the other end of which, 5 minutes walk away, is the Borough Underground Station. Free parking is easily available in Southwark Bridge Road for road users, Cyclists are welcome.

Members currently each pay a subscription of £30 per year towards the cost of the hire of the hall and a small additional charge is made for tea/coffee - biscuits are then provided free.

Please bring your QL equipment if possible, all types welcome, e.g., PC portable running emulators. The Group has some systems stored at the venue for its use. In addition, there are lots of donated second user equipment, books, magazines, etc, available for purchase.

Time: 2.00 pm. to 6.00 pm., on the second Sunday of the month.

No meetings are held in either December - winter break, or August summer break. Giving 10 meetings a year.

Malcolm Cadman: Tel: 020 8691 5780

email: [QL@mcad.demon.co.uk](mailto:QL@mcad.demon.co.uk)

## NEMQLUG - THE NORTH EAST MANCHESTER QL USER GROUP

**M**eetings are held at 181, Urmston Lane, Stretford, Manchester. M32 9EH (Near Junction 7 of M60 Motorway - Was Junction 7 M63 Motorway). Our informal meetings start at 7 p.m. and finish at 11 pm. All welcome.

Meets on the last Thursday of each month (except December).

John/Sarah Gilpin 0161-865 2872 ([thegilpins@btopenworld.com](mailto:thegilpins@btopenworld.com))

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## SCOTTISH QL USERS GROUP

**S**QLUG meets at George Gwilt's home every second Sunday in the month. Please contact George Gwilt before coming to get the location.

[Geogwilt@aol.com](mailto:Geogwilt@aol.com)

## SOLENT SUBGROUP

**M**eets at Botley Market Hall, all welcome. Park at the back and use side entrance.

1st Saturday of the month from 2.00 pm to 6.00 pm.

Graham Evans, Tel: 023 8040 3350.

## SURREY QUANTA SUBGROUP (SQSG)

**T**he group is currently trying other venues in the Leatherhead - Epsom area. If you plan to attend but do not get our emails, please phone or email Ken Bain for the latest location.

Meetings are 8.00 to 10.00 pm. On the last Wednesday of each month except December.

Ken Bain - 01932 - 347 432 (to midnight), [kenb@bcs.org.uk](mailto:kenb@bcs.org.uk)

## SUSSEX QL USER GROUP

**C**urrently without a meeting place, anyone interested should contact Keith Mitchell or Roy Wood.

Roy Wood, 01273 430501 or Keith Mitchell, 01903 742263.